Michaela Albl-Mikasa, Christiane Hohenstein

15 Cognition in community interpreting: the influence of interpreters' knowledge of doctor-patient interaction

Abstract: Within the wider interdisciplinary framework of applied linguistics, conference interpreting research has long since incorporated the cognitive processing dimension. Looking at the impact of (unshared) knowledge of medical conversation structures on interpreting performance, this paper highlights the benefits of such an approach for community interpreting.

1 Introduction

The significant migration flows of the 1990s, asylum seekers among others, led to "interpreting needs 'in the community' – in legal, healthcare, social service and educational settings" (Pöchhacker, 2015: 67). The ensuing rise in community interpreting (CmI) was met with "a new paradigm in interpreting research, centred on the descriptive analysis of discourse in interaction (DI)". This approach suggests that dialogue interpreting research in institutional settings takes a "micro-sociological look at language use in interaction". In contrast, research into conference interpreting (CfI) has focused on cognitive processes (CP). The "shift of emphasis from studying cognitive processes in the interpreter to studying interpreting processes in social institutions" (Pöchhacker, 2015: 69) has firmly grounded community interpreting research in interactional sociolinguistics, at the expense of the cognitive processing dimension. This focus prevents CmI from benefitting from the longstanding results of CfI research.

Interpreting Studies is a field in applied linguistics and applied linguistics is all about offering solutions to real-life language and communication problems (Knapp & Antos 2016: xi). The data drawn on in this paper are hospital-based interpreter-mediated doctor-patient encounters, representing institutionalised interpersonal communication. It has long been recognised that communication is

DOI 10.1515/9783110496604-016,

crucial to the success of anamnestic, diagnostic and therapeutic communication in monolingual doctor-patient encounters (cf. Löning & Rehbein, 1993). "Communication lies at the heart of healthcare. Without it, providers cannot provide good care, and patients are at risk" (Roat & Crezee, 2015: 242).

A typical feature of healthcare interpreting settings is the asymmetrical relationship between participants. In addition to power and authority-related aspects, there is a major knowledge differential between doctors and patients. This not only relates to specialised medical knowledge including terminology, but also to knowledge about the institutional framework, goals and processes. An interpreter introduced into this highly institutionalised and potentially culturally loaded situation will have to deal with both the knowledge gap and the interpersonal structure between the physician acting on behalf of the institution and the patient as their client.

This paper looks at one particular aspect of this knowledge gap, namely knowledge of the structure of patient interviews and the intention-guided, action-oriented chronological organisation of the encounter by medical personnel. Our data were examined against the backdrop of the cognitive discourse analysis-based model described below. Analysis suggests that if interpreters lack knowledge of the specific structure of doctor-patient interactions – such as building rapport in the initial part or ensuring compliance during the treatment discussion – this adversely affects their renditions, leading to lengthy detours and partially unsuccessful communication between medical personnel and patients.

Our analysis was based on a large-scale study funded by the Swiss Commission for Technology and Innovation (KTI) and carried out by an interdisciplinary team of medical specialists from the University Hospital of Basel and interpreting studies/applied linguistics researchers from the Zurich University of Applied Sciences (ZHAW) in German-speaking Switzerland. On the basis of 19 video-recorded and transcribed authentic doctor-patient interactions in Swiss hospitals with interpretation from and into Turkish and Albanian, interpreter (in)accuracy and role behaviour was investigated (Sleptsova et al., 2014) as well as interpreter (non-)rendition of the mitigating effect of hedges (Albl-Mikasa et al., 2015). This paper focuses on the link between knowledge of medical conversation structures and its effect on interpreter-mediated interactions.

2 Knowledge schemata for conventional interaction forms

By its very nature, interpreted doctor-patient communication (IDPC) takes place in situations where communication is essential if not existential. Applied

linguistics offers a problem-solving approach which is both cognitive and social, based on linguistic pragmatics and interdisciplinary cognitive discourse analysis. The Heidelberg School of Interpreting Studies introduced this approach into the discipline as a "cognitive and pragmatic discourse model of interpreting" (Albl-Mikasa, 2013: 193; Kohn & Kalina, 1996). Its cornerstone is cognitive processing and mental modelling, the psychological reality of which is supported by a large body of psycholinguistic evidence. The overarching conclusion is that language comprehension and production processes largely operate via an interaction of the bottom-up analysis of incoming speech or text signals and the top-down activation of general world and linguistic knowledge, specialised knowledge, interactional expectations and meaning inferences. Enriched with findings from functional pragmatics (Redder 2008), which models communication by reflecting institutional cognitive processing or linguistic interaction and speech action processes in relation to social reality, it provides a framework for the joint reflection of CmI and CfI.

Some of the knowledge accessed and retrieved top-down pertains to institutionalised interaction forms. These "superstructures" or "schemata for conventional text forms [...] play a considerable role in processing" (van Dijk & Kintsch, 1983: 54) due to their canonical order and the semantic constraints of the schematic categories from which state descriptions, place and time specifications, event backgrounds and action motivations automatically follow (van Dijk & Kintsch, 1983: 206). In other words, knowledge of typical interaction patterns, chronological sequences and conventionalised speech acts, intentions, illocutionary forces and related stereotypical phrases is represented mentally in the form of cognitive schemata. Naturally, those responsible for an encounter, i. e. the doctors, follow such structures intentionally. Interpreters, unable to rely on the same knowledge structures, are unaware of the doctor's 'mental action plan' and lack the guidance it provides. This hinders their ability to make accurate assumptions about the direction the doctor-patient communication is meant to take. As a consequence, interpreters in that situation cannot anticipate and infer quickly and effectively, which is highly likely to adversely affect target speech rendition.

With this in mind, informed by cognitive and pragmatic discourse analysis, we will more comprehensively observe the interaction processes and the background knowledge at play in interpreted doctor-patient communication. We will first briefly look at the macro-interactional patterns typical of doctor-patient encounters in hospital institutions and then at the structures of these encounters. Finally, we will analyse empirical data from the corpus described above to show how a lack of conventionalised interactional knowledge structures or schemata impacts the interpreter's performance.

3 Types and structures of medical encounters

Research has shown that interpreters without specialised institutional knowledge may fail to grasp the overall, external structure of doctor-patient encounters and hence their embeddedness in the larger institutional processes (cf. Bührig et al., 2000). Moreover, they may be unaware of internal structures and purposes, such as the elicitation of metaphorical descriptions of pain to rule out specific diagnoses, or the physician's use of questioning strategies (cf. Bührig, 2009: 156 f., 166; Bührig & Meyer, 2009: 198–202; Rehbein, 1993; 1994).

From a structural perspective, doctor-patient communication (DPC) can be divided into the two categories "initial medical interviews" and "follow-up encounters". An "initial medical interview" is the first conversation between a general practitioner or medical specialist and a patient suffering from an as yet unidentified ailment. Since the physician is not yet familiar with the patient, the encounter largely revolves around reconstructing the patient's medical history and noting any hereditary illnesses among family members. To serve that purpose, the internal structure is characterised by the doctor asking typical, specific questions and the patient providing answers in narrative stretches. This type of doctor-patient communication is often dubbed "anamnestic medical interview" (cf. Bührig & Meyer, 2009: 191), even if physical examination, diagnosis and counselling take place within the same encounter.

The second discourse type, "follow-up encounter", includes all types of doctor-patient communication where patients are in the process of being treated or undergoing check-ups. By this point, the doctor knows the patient, his/her illness and medical history, and medical records containing information on the diagnosis, subsequent treatments and their success or failure are available. Thus, there is a shared "pre-history" between doctor and patient as well as routines and action practices that both will rely on (cf. Rehbein, 1977).

The interaction types "initial medical interview" and "follow-up encounter" harbour different challenges for interpreters in IDPC: in *initial medical interviews*, particular attention must be paid to the way physicians phrase their questions, alternative expressions and metaphors used for the purpose of eliciting diagnostically relevant descriptions of pain by the patient (see Bührig & Meyer, 2009: 191–203 for details). *Follow-up encounters*, in contrast, presuppose knowledge of particular patient experiences during diagnosis and treatment so far, and knowledge of diagnostic and therapeutic procedures carried out and likely to be referred to by physicians. Such professional knowledge on the part of the physicians and semi-professional knowledge on that of the patients (cf. Löning, 1994) is tacit knowledge shared by doctors and patients. In order for interpreters to be able to assess the relevance of particular assertions,

announcements or questions, this tacit knowledge may have to be made explicit to them at strategic intervals.

Turning to the *internal structure* of doctor-patient encounters, they appear to exhibit a rather unequivocal structure, which different authors on medical interpreting – such as Valero Garcés (2007), Dubslaff & Martinsen (2007) and Pittarello (2012) – have identified using slightly different labels. A synopsis of the standard structure reads as follows:

1. opening (with or without initial greetings, depending on whether the patient has seen the doctor in the waiting area or at the counter beforehand)
2. enunciation of problems; medical history (for initial medical interviews)
3. evaluation and discussion of the patient's condition, including verbal and physical examination and diagnostic procedures (the result of which is often not available immediately)
4. discussion and prescription of treatment and/or check-ups, consultation and medical advice (oriented towards problem-solving, resulting in a decision and treatment suggestion)
5. closing (with farewells, often preceded by an agreement regarding further appointments)

Functionally speaking, the opening prepares patients for the course of action about to commence. In follow-up encounters, there is often an announcement of this course of action as well as a link to the pre-history shared by doctors and patients. Since interpreters are rarely party to this pre-history, it is from the very out- and onset of discourse that interpreting difficulties may arise. This is illustrated in the following discussion of an example from one of the doctor-patient encounters in our corpus.

4 Example of communication problems due to the interpreter's lack of knowledge

The following example is an IDPC excerpt taken from the data outlined above. It is between a Swiss-German female doctor (DocF1) and a female Turkish patient (PatF1T) with little L2 German, interpreted by a trained community interpreter (IntF1) with L1 Turkish and L2 German. The patient has been treated for multiple medical problems, notably cancer of the right kidney, paralysis and immobility problems as well as bladder inflammation. Bearing the patient's medical history in mind, the following example is typical of follow-up encounters in the case of long-term illness.

Example: Opening part of the interaction, 20 sec. at min. 01:28.0-01:49.5. The transcript provides the original German or Turkish version of each utterance with the English translation in italics.

1DocF1	Frau D. *Ms D.*
2PatF1T	((sits down)) Ja. *Yes ((answers in German))*
3DocF1	Jetzt fangen wir an. *We are starting now.*
4DocF1	Ähm wir machen heute ne Kontrolle. *Um, we are going to do a check-up today.*
5DocF1	Und jetzt habe ich als erstes ne Frage. *((points to fingers of PatF1T))* *And now I have a question first.*
6DocF1	Haben Sie Blut abgegeben für I-En-Er- Kontrolle? *Did you give a blood sample for INR testing?*
7IntF1	Eee bugün sadece konrol yapacak, bu kontroldan sonar sonuç alıcak. *Uh, today there will only be a check-up, after that check-up there will be a result.*
8IntF1	Kan verdinizmi bügün? *Did you give a blood sample today?*

This excerpt represents the opening of a follow-up encounter. The doctor starts in utterance 1DocF1 with a form of address, greeting the patient. The patient answers in German in 2PatF1T and it becomes clear that she has a basic command of German. This may, in fact, be the reason why the interpreter does not interpret utterance 3DocF1 for the patient. The interactional function of said utterance is to make an announcement for the patient that the interaction is about to start, and thus prepare her for phase 2 of the standard structure as described above, i. e. the enunciation of problems, where she will be asked to give an account of her current condition and problems. This preparatory step in the interaction between doctor and patient is missing in the interpretation into Turkish. While this may not necessarily impede the continuation of the interaction, an announcement is a speech action aimed at establishing "rapport" between doctor and patient, promoting a reciprocal understanding of the sequential course of the interaction.

The announcement of the doctor's action plan in 4DocF1 is rendered by the interpreter in 7IntF1 as a complex Turkish utterance, which is not an *announcement* at all: the first person plural "we", often used in physicians' speech in order to establish a joint action system, and the inclusive personal predicate ("we are

going to do"), announcing a joint action in 4DocF1, are changed in Turkish into an impersonal prediction, asserting an event without the active involvement of either doctor or patient ("there will be"). Additionally, the use of the mitigation "only" in Turkish regarding the planned course of action makes the purpose of the whole interaction – checking up on the patient in the aftermath of cancer therapy and further ailments – appear to be a trivial matter. The additional element ("there will be a result"), which the interpreter adds in Turkish in 7IntF1, shows that she has not understood the purpose of the current interaction, which is precisely to monitor the patient's condition: that there will be a "result" has not been said and is clearly not the purpose of the current interaction, yet the interpreter seems to think it necessary to supply this purpose of her own accord.

In utterance 8IntF1, there is yet another modification and distortion of the interactive process resulting from the Turkish translation. While the doctor in 5DocF1 makes an *announcement* of her question *before actually posing the question* in 6DocF1, the interpreter overrides this announcement by only asking the question and omitting part of it in 8IntF1. The patient, thus, misses out on the doctor qualifying her question as pre-situated ("now", "first") to the main part of the interaction. As the patient is expecting her problems to be addressed, the absence of the doctor referring to the shared knowledge of standard check-up procedure is felt. Similarly, the doctor's use of the medical term "INR" without further explanation implies that the patient can be expected to follow, because it is a routine she has undergone several times and knows to be part of a check-up. Again, the interpreter does not use the expression referring to that specific procedure and may not be familiar with it. Nor does she seem to understand that it is related to (professional) institutional knowledge on the part of the doctor as well as (semi-professional) institutional knowledge on the part of the patient (cf. Löning, 1994).

In summary, a lack of background knowledge of the standard institutional structure of doctor-patient interaction and related procedures on the part of the interpreter renders it difficult for her to understand and interpret into Turkish the intended messages relevant to the interaction at hand. The crux here is that, at a very early stage in the interaction, where turns are as yet rather short and simple, substantial modifications to the doctor-patient's joint action system are apparent, altering rapport and mutual understanding in the (dis)course of the communicative action taking shape.

The illustrated example is not a singular finding in our data. Similar problems are found to recur in the video-recorded encounters with different medical doctors and different interpreters (both male and female). At this stage, we have evidence that the discrepancy between the doctor's action plan and the interpreter's rendering of the consultation process leads to unnecessarily lengthy consultations. Further analyses of the data will investigate whether the interactional purpose of the DPC can be fully achieved against this backdrop.

5 Conclusion

The as yet sociolinguistic focus in research into community interpreting outlined in the introduction goes hand in hand with a concentration on the ethnographic observation of institutional practice. As a result, the "body of research on community interpreting has to date focused mainly on aspects of the interpreter's role in the interaction between interlocutors/participants and in the communication process", at the expense of the cognitive processing dimension (Englund Dimitrova & Tiselius, 2016: 195). This paper aims to highlight the added value of integrating this dimension. Based on the Heidelberg School's cognitive pragmatic discourse model of interpreting, and incorporating functional-pragmatic findings, the analysis of our authentic data from IDPC in Swiss hospitals reveals that major shortcomings in interpreted doctor-patient interactions result from the lack of knowledge on the part of the interpreter(s), because knowledge not only of languages and cultural aspects, but also of institutional interaction structures are an integral and indispensable part of interpreters' mental comprehension and production processes.

We would like to emphasise two major considerations: firstly, our findings could not have been inferred from looking at practical situations in medical settings alone – hence the need for an empirically based theoretical applied linguistics framework. Secondly, we conclude that conventionalised schemata or knowledge of domain- and discourse-specific structures need to be integrated into community interpreter training in any professionalisation endeavour.

References

Albl-Mikasa, M. (2013). ELF speakers' restricted power of expression – implications for interpreters' processing. *Translation and Interpreting Studies*, *8*(2), 191–210.

Albl-Mikasa, M., Glatz, E., Hofer, G. & Sleptsova, M. (2015). Caution and compliance in medical encounters. Non-interpretation of hedges and phatic tokens. *Translation & Interpreting*, *7*(2), 76–89.

Bührig, K. (2009). Interpreting in hospitals. Starting points for cultural actions in institutionalized communication. In Bührig, K., House, J. & Ten Thije, J.T. (eds.). *Translational action and intercultural communication* (pp. 155–178). Manchester: St. Jerome Publishing.

Bührig, K., Durlanık, L., & Meyer, B. (2000). *Arzt-Patienten-Kommunikation im Krankenhaus: Konstitutive Handlungseinheiten, institutionelle Handlungslinien*. Hamburg: Sonderforschungsbereich 538.

Bührig, K., & Meyer, B. (2009). Gespräche zwischen Patienten und Ärzten. Ein- und mehrsprachige Anamnesen im Krankenhaus. In Klusen, N., Fließgarten, A. & Nebling, T. (eds.). *Informiert und selbstbestimmt. Der mündige Bürger als mündiger Patient* (pp. 189–205). Baden-Baden: Nomos.

Dubslaff, F., & Martinsen, B. (2007). Exploring untrained interpreters' use of direct versus indirect speech. In Pöchhacker, F. & Shlesinger, M. (eds.). *Healthcare Interpreting* (pp. 53–76). Amsterdam/Philadelphia: John Benjamins.

Englund Dimitrova, B. & Tiselius, E. (2016). Cognitive aspects of community interpreting. Towards a process model. In Ricardo Muñoz, M. (ed.). *Reembedding Translation Process Research* (pp. 195–214). Amsterdam/Philadelphia: John Benjamins.

Knapp, K., & Antos, G. (2016). Introduction to the handbook series. In Tsagari, D. & Banerjee, J. (eds.). *Handbook of the second language assessment* (pp. vii–xvii). Boston/Berlin: de Gruyter.

Kohn, K. & Kalina, S. (1996). The strategic dimension of interpreting. *Meta*, *61*(1), 118–138.

Löning, P. (1994). Versprachlichung von Wissensstrukturen bei Patienten. In Redder, A. &Wiese, I. (eds.). *Medizinische Kommunikation: Diskurspraxis, Diskursethik, Diskursanalyse* (pp. 97–111). Opladen: Westdeutscher Verlag.

Löning, P., & Rehbein, J. (eds.). (1993). *Arzt-Patienten-Kommunikation. Analysen zu interdisziplinären Problemen des medizinischen Diskurses*. Berlin: de Gruyter.

Pittarello, S. (2012). Medical terminology circulation and interactional organisation in interpreter-mediated medical encounters. In Montalt, V. & Shuttleworth, M. (eds.). *Translation and knowledge mediation in medical and health settings* (pp. 113–131). Antwerp: Artesis University College Antwerp, Dept. of Translators & Interpreters.

Pöchhacker, F. (2015). Evolution of interpreting research. In Mikkelson, H. et al. (eds.). *The Routledge Handbook of Interpreting* (pp. 62–76). London/New York: Routledge.

Redder, A. (2008). Functional pragmatics. In Antos, G. & Ventola, E. (eds.). *Handbook of Interpersonal Communication* (pp. 133–178). Boston/Berlin: de Gruyter.

Rehbein, J. (1977). *Komplexes Handeln. Elemente zur Handlungstheorie der Sprache*. Stuttgart: Metzler.

Rehbein, J. (1993). Ärztliches Fragen. Analysen zu einem interdisziplinären Problem. In Löning, P. & Rehbein, J. (eds.). *Arzt-Patienten-Kommunikation. Analysen zu interdisziplinären Problemen des medizinischen Diskurses* (pp. 311–363). Berlin: de Gruyter.

Rehbein, J. (1994). Rejective proposals: semi-professional speech and clients' varieties in intercultural doctor-patient communication. *Multilingua 13*(2), 83–130.

Rehbein, J., & Löning, P. (1995). *Sprachliche Verständigungsprozesse in der Arzt-Patienten-Kommunikation: linguistische Untersuchung von Gesprächen in der Facharzt-Praxis*. (Vol. 54, Arbeiten zur Mehrsprachigkeit). Hamburg: Universität, Germanisches Seminar, Deutsch als Fremdsprache.

Roat, C.E., & Crezee, I.H.M. (2015). Healthcare interpreting. In Mikkelson, H. et al. (eds.). *The Routledge Handbook of Interpreting* (pp. 236–253). London/New York: Routledge.

Sleptsova, M., Hofer, G., Morina, N., & Langewitz, W. (2014). The role of the healthcare interpreter in a clinical setting – a narrative review. *Community Health Nursing 31*(3), 167–84. doi: 10.1080/07370016.2014.926682.

Valero Garcés, C. (2007). Doctor-patient consultations in dyadic and triadic exchanges. In Pöchhacker, F. & Shlesinger, M. (eds.). *Healthcare Interpreting* (pp. 35–51). Amsterdam/Philadelphia: John Benjamins.

Van Dijk, T.A., & Kintsch, W. (1983). *Strategies of Discourse Comprehension*. New York: Academic Press.